Single Circuit Generator Transfer Switch Models; HTS15-AUTO SP, HTS15-AUTO DP, HTS15-MAN

Congratulations on your purchase of our Single Circuit Generator Transfer Switch, We hope this meets and exceeds your expectations. If at anytime you have any questions please email or call our customer service number for service. Please check out our *how to install videos* at our website: http://heezy.com

Tools Needed For Installation

- Power drill
- Wire stripper and cutter (10 to 14 gauge)
- Screwdrivers (#2 Phillips, ¼" Flat Tip or #2 Square Tip)(Insulated Recommended)
- Voltage Meter
- Backup lighting during installation (optional)
- A non-contact voltage detector (optional)
- Marking pen or pencil (optional)
- Tape measure (optional)

Parts List For HTS15

- 15 Amp Automatic Transfer Switch w/ conduit whip & wiring
- 5 - Wire connector nuts
- 4 - Sheet metal screws
- 4 - Drywall anchors/screws
- 1 – Brass Jumper Connector

Safety Symbols & Notices

Heezy LLC & It's Partners are not responsible for damage or injury caused by correct or incorrect installation of this transfer switch.

Danger indicates an imminently hazardous situation that, if not avoided, could result in death or serious injury.

Warning indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.

Caution indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.

⚠Warning Improper installation of the transfer switch could cause damage or personal injury by electrocution or fire. Installation must be performed by a qualified electrician, or others knowledgeable of electrical systems, in compliance with all applicable electrical codes.

⚠Warning Heezy transfer switches covered in this manual should not be used for any appliances or systems that may exceed the capacity of the product. All transfer switches meet the NEC (National Electrical Code) for 2011.

Transfer switches are required for use with portable generators by Article 702 of the 2011 National Electrical Code.

SPECIFICATIONS

Product Type	Manual / Automatic Transfer Switch
Manufacturer	Heezy LLC
Model	HTS15-MAN / HTS15-AUTO
UPC Code	Man-799665057046 Auto-799665057060
Maximum Voltage	125 Volts AC
Number of phases	1
Maximum Amperage	15.0 Amps
Maximum Wattage	1875 Watts
Case Material	Aluminum
Indoor/Outdoor	Indoor Only
Product Height (in.)	5.5”
Product Width (in.)	3.5”
Product Depth (in.)	3.0”
Product Weight (lb.)	2.0 lb
Manufacturer Warranty	Lifetime
Return Policy	90-Day

Installation Instructions

There are a few options for installation, usually the most convenient location for powering the transfer switch is the best option for most installations. We also recommend locating the transfer switch as close to the back up power source as possible.

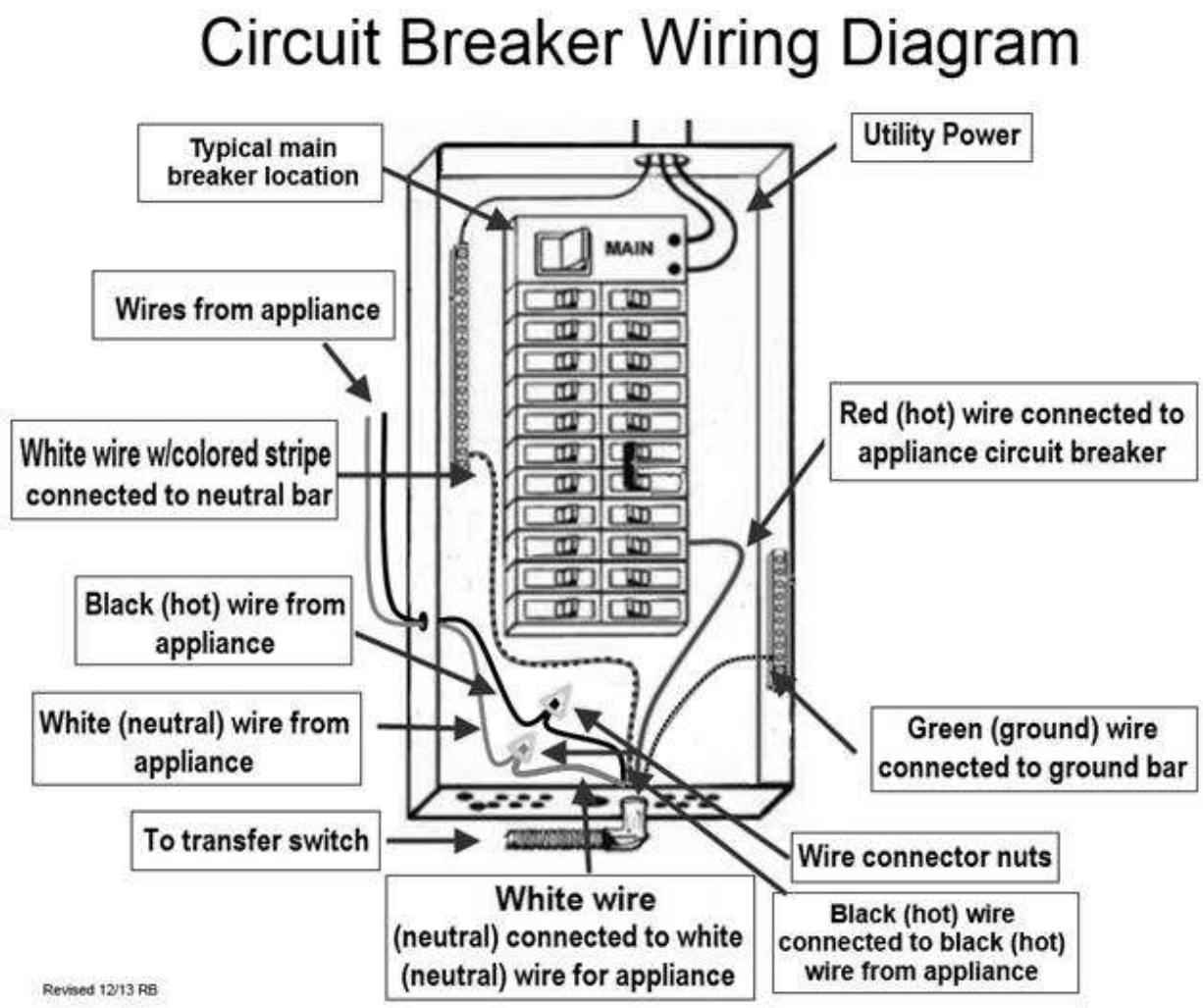
These options are in 3 Sections;

A. Installing at Circuit Breaker Panel/Load Center
B: Installing at System or Appliance
C: Bypassing Neutral Switching (optional)

⚠Danger

If installing at the circuit breaker panel, always turn off “main breaker” this is usually at the top of the breaker panel. Even with the main power switch turned off, the wires on

the utility side of the main breaker are still live and contact with them can cause serious injury or death.


Circuit Breaker Wiring Diagram
Typical main breaker location
Utility Power
MAIN
Wires from appliance
White wire w/colored stripe connected to neutral bar
Red (hot) wire connected to appliance circuit breaker
Black (hot) wire from appliance
White (neutral) wire from appliance
Green (ground) wire connected to ground bar
To transfer switch
Wire connector nuts
White wire (neutral) connected to white (neutral) wire for appliance
Black (hot) wire connected to black (hot) wire from appliance
Revised 12/13 RB

A. Installing at Circuit Breaker Panel/Load Center

Mounting the Transfer Switch

1. Position the transfer switch so that its bottom center is about 18 inches from your circuit breaker load center or to where the flexible conduit whip should be lined up with a 1/2” knockout hole.
2. Anchor the transfer switch to the wall with at least two Powers wall anchors, if mounting to drywall or wood no pre-drilling is necessary, if mounting on masonry, brick etc pre-drill with a 3/16” bit before using the Powers wall anchors.
3. If mounting directly on sheet metal use at least two self tapping sheet metal screws.

NOTE: Do not attempt to bend the flexible conduit whip beyond its structural capabilities.

Connecting the Flexible Conduit Whip to Your Circuit Breaker Panel

1. Set up battery-powered lighting to clearly illuminate your work area.
2. Turn off the main utility breaker, Use Voltage Meter to check that the power is OFF
3. Remove the cover of your load center. Keep in mind that the wires on the utility side of the main breaker are still live and if contacted could cause serious injury or death. If available, use a non-contact voltage detector to insure that the power is off on the non-utility side of the main breaker.
4. Remove the appropriate knockout hole in the bottom or side of your load center with a screwdriver and hammer.
5. Insert all five of the wires extending from the end of the flexible conduit whip through the knockout hole. Fasten the conduit connector attached to the whip into the knockout hole using the nut provided.

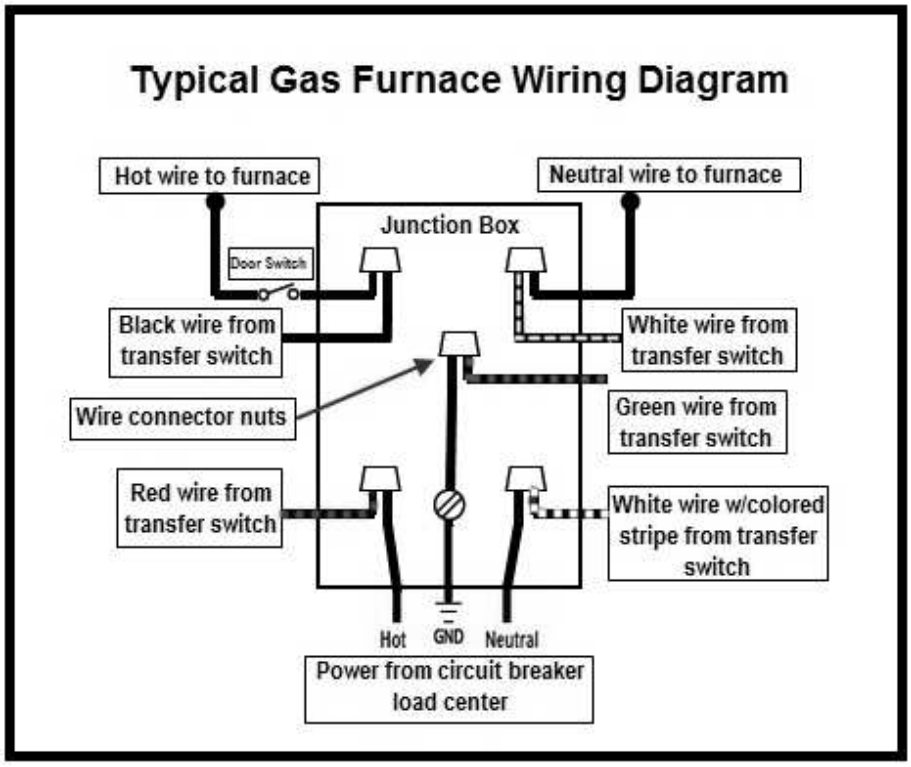
Connecting a 120 Volt 15 Amp Circuit

1. ***Turn off the circuit breaker*** you want to connect to. ***Disconnect*** the wire that is attached to it and leave it off to the side.
2. Find the **RED** wire from the transfer switch
3. Strip 1/2” from the end of the **RED** wire. Connect the **RED** wire to the circuit breaker and retighten the screw on the breaker.
4. Find the **BLACK** wire from the transfer switch. Strip 1/2” from the end of the **BLACK** wire.
5. Insert both wires—the one previously removed from the circuit breaker and the **BLACK** wire from the transfer switch—into a wire nut connecter. Tighten the connection until the wires start twisting and push the connected wires back into the wiring compartment of the load center.

Connecting the Neutrals and Ground Wire

1. Find the **ALL WHITE** wire and the **STRIPED WHITE** wire and the **GREEN** wire among the wires from the transfer switch that you have inserted into the load center.
2. Strip approximately 1/2” from the end of the **STRIPED WHITE** wire. Locate the ***neutral bar*** and partially unscrew a terminal screw on the bar. Insert the stripped end of the **STRIPED WHITE** wire into the side of the bar under the screw and retighten the screw.
3. Locate the ***ground bar***. (It should be labeled.)
4. Connect the **GREEN** wire to the ground bar in the same way as in step #2. In service entrance load centers, the ground bar and neutral bar are frequently the same; if this is true and space is limited the ground and neutral wires can be connected to either.
5. Locate the **WHITE** wire (neutral) from the circuit you are powering and ***disconnect that wire from the neutral bar***.
6. Connect the **WHITE** wire (neutral) from step #5 to the **ALL WHITE** wire. Insert both wires into a wire nut connecter. Tighten the connection until the wires start twisting and push the connected wires back into the wiring compartment of the load center.

B. Installing at System or Appliance



Mounting the Transfer Switch

1. Position the transfer switch so that the flexible conduit whip will be lined up with a 1/2” knockout hole.
2. Anchor the transfer switch to the wall/unit with at least two Powers wall anchors, if mounting to drywall or wood no pre-drilling is necessary, if mounting on masonry, brick etc pre-drill with a 3/16” bit before using the Powers wall anchors.
3. If mounting directly on sheet metal use at least two self tapping sheet metal screws.

Connect the Flexible Conduit Whip to the appliance

1. Set up battery-powered lighting to clearly illuminate your work area.
2. Turn off the circuit breaker servicing the appliance.
3. Remove the electrical access or panel cover. If available, use a non-contact voltage detector or volt meter to insure that the power is off.
4. Remove the appropriate knockout hole in the bottom or side of your appliance with a screwdriver and hammer.
5. Insert all five of the wires extending from the end of the flexible conduit whip through the knockout hole. Fasten the conduit connector attached to the whip into the knockout hole using the nut provided.

Connecting a 120 Volt 15 Amp Circuit

1. **Turn off the circuit breaker for the appliance you want to connect to**.
2. Locate the electrical junction box/wiring compartment in the appliance, double check there is no power present with a volt meter or non contact voltage detector.
3. Strip 1/2” from the end of each of the wires coming from the transfer switch.
4. Locate and disconnect the **black** (hot) wires from the appliance.
5. Find the **RED** wire from the transfer switch, and the **BLACK** wire coming from

the circuit breaker powering the appliance from step #4. Insert both wires into a wire nut connecter. Tighten the connection until the wires start twisting and push the connected wires back into the wiring compartment.

6. Find the **BLACK** wire from the transfer switch and the **BLACK** wire connected to the appliance, Insert both wires into a wire nut connecter. Tighten the connection until the wires start twisting and push the connected wires back into the wiring compartment.

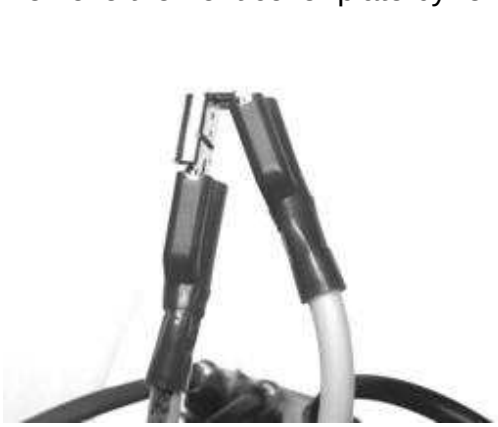
Connecting the Neutrals and Ground Wire

7. Locate and disconnect the **WHITE** (neutral) wires from the appliance.
8. Connect the **WHITE** wire (neutral) coming from the circuit breaker to the **STRIPED WHITE** wire from the transfer switch. Insert both wires into a wire nut connecter. Tighten the connection until the wires start twisting and push the connected wires back into the wiring compartment of the load center.
9. Connect the **WHITE** wire (neutral) from the appliance to the **ALL WHITE** wire from the transfer switch. Insert both wires into a wire nut connecter. Tighten the connection until the wires start twisting and push the connected wires back into the wiring compartment of the load center.
10. Connect all the **GROUND** wires; Insert all the ground **(green or bare copper)** wires into a wire nut connecter. Tighten the connection until the wires start twisting and push the connected wires back into the wiring compartment of the load center.

C. Bypassing Neutral Switching (optional)

- The Heezy HTS15 transfer switch is equipped to switch both the Hot leg and Neutral legs of the power from both the utility line power and the generator power. This is may required for some local codes, particular generators and some (HE) high efficiency appliances. Bypassing the neutral switching will not compromise any safety features.
- In some circumstances this feature may need to be bypassed for proper operation for certain types of equipment & generators. Generators with a floating or non-bonded neutral generally require to have the neutrals tied together (not-switched) for proper operation.
- To check your generator neutral wiring, use a volt/ohm meter and set it to check for continuity, while the generator is turned off and unplugged from anything place the probes into the neutral and ground terminals of an outlet plug, on a 120V outlet this would be at the 9 –o’clock and 6-o’clock position, if it beeps or shows a connection then you have a bonded neutral and don’t need to connect the neutrals.
- If it shows it’s open or not connected then it’s a floating neutral and may require you to connect them together in the transfer switch if the generator or appliance has problems operating.
- This may become necessary if the appliances being controlled don’t operate properly or at all on the generator power. This has been the case on some brands of High Efficiency furnaces.

To bypass the neutral switching

1. If already installed, shut off circuit breaker or main breaker serving the transfer switch.
2. All the neutrals need to be connected together, this can be done by connecting all the neutral wires to the neutral bar or connecting together with a wire nut in the appliance wiring compartment.
3. Another option is to connect all the neutrals together inside the transfer switch.
4. Remove the front cover plate by removing the 4 screws on the top/bottom.
5. 
   Remove all the white (neutral) wires from the back of the switch. Using the push on jumper connector (brass colored) connect the 2 white wires together and place back on the middle connector on the switch and/or relay.
6. **<u>NOTE: The white wire w/colored stripe will no longer be used, so it must removed from the transfer switch and conduit.</u>**
7. Place the front cover plate back on and attach with the screws.

After you have completed the steps in Sections A through C, complete the installation by doing the following:

1. Turn the circuit breaker in your load center/breaker panel back on.
2. Turn on the main breaker.

Operating Instructions

Warning

You want your generator to be ready when you need it -- so, it is important to perform the following steps at least every 6 months:

- Start and run generator power through your transfer switch circuits.
- Keep your fuel tank filled with fresh fuel

With your Heezy transfer switch installed, it is not necessary to turn off any of your load center breakers when starting your generator, even when utility power is fully functional. This is because the double throw break-before- make action of the transfer switch prevents feeding generator power to the utility and, conversely, prevents feeding utility power back to your generator.

Transferring from Utility Line Power to Backup Generator Power in an Emergency

HTS15-AUTO (SP) Standard Power Version;

1. The Auto SP Transfer Switch is normally powered by your Utility line voltage, when this fails or is interrupted simply start your generator outdoors and let it warm to a point where it is running evenly.
2. Plug the appropriately sized extension cord into the appropriate receptacle on your generator.
3. Plug the female end of the extension cord into the Automatic Transfer Switch.
4. The Transfer Switch will automatically switch over from your Utility Line Voltage to your backup power source.

Transferring back to utility power when power is restored

1. Turn off your generator.
2. Unplug the extension cord.
3. The Auto Transfer Switch will automatically switch back to your Utility Line Voltage once there is no power present at the Inlet Plug. If your main utility power comes back on while using your generator the transfer switch will continue to run through the backup power source until you remove power from the inlet plug.

HTS15-AUTO (DP) Dual Power Version;

1. The Auto DP Transfer Switch is normally powered by your Utility line voltage, when this fails or is interrupted it will automatically switch over to your back up power source.
2. Keep the appropriately sized extension cord plugged into your inverter/battery bank or auto starting generator and into the inlet plug of the transfer switch.
3. It is not necessary to remove this cord unless you want to keep the switch from automatically being powered by your backup power source.
4. The Transfer Switch will automatically switch over to your Utility Line Voltage when power has been restored.

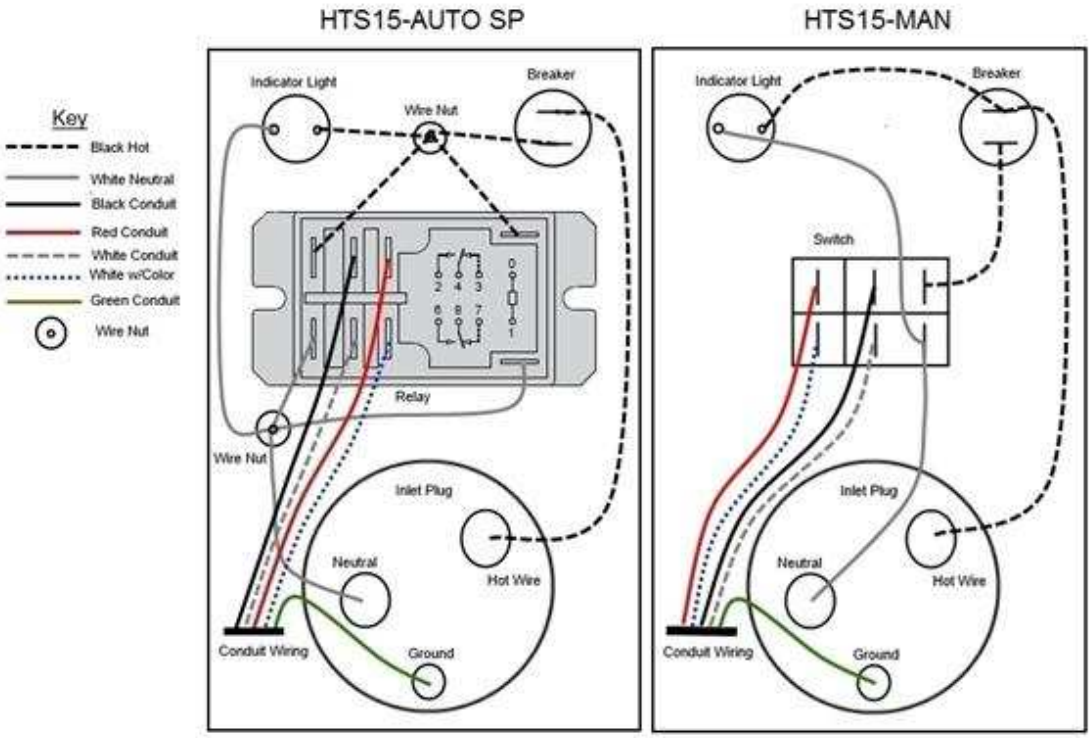
HTS15-MAN (Manual Versions)

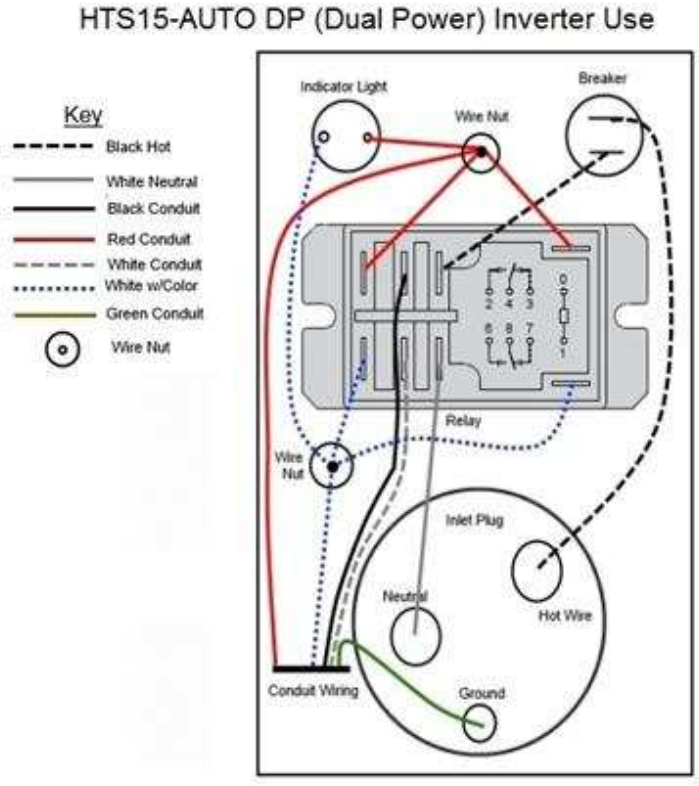
1. Make sure that the toggle switch on the Transfer Switch is in the MAIN/LINE or OFF position.
2. Plug the appropriate extension cord into the appropriate receptacle on your generator.
3. Plug the female end of the extension cord into the Transfer Switch.
4. Start your generator outdoors and let it warm to a point where it is running evenly.
5. Turn the toggle switch on the transfer switch to the GEN/PLUG position.

Transferring back to utility power when power is restored

1. Move the toggle switch on the Transfer Switch back to the OFF or MAIN/LINE position.
2. Turn off your generator.
3. Unplug the extension cord.

Wiring Diagrams





The No "BS" Lifetime Warranty; The only warranty that covers it all! Heezy LLC is committed to developing outstanding products of superior design, performance and value. We pride ourselves on developing an ongoing, lifelong relationship with you, our consumer. Due to our extreme confidence in our products and our insatiable desire to deliver only the highest level of service, we have created the most consumer-friendly warranty there is.

If one our products is ever broken, damaged or fails to work properly, we will

repair or replace it free of charge. Regardless of who broke it. Simple as that! 90 Day No Questions Asked 100% Refund! If your not 100% satisfied with our product simply return it in the original box within 90 Days of purchase and receive 100% of your purchase price.

Our “No BS” Lifetime Warranty will cover the repair of all functional aspects of your Heezy LLC Product for the life of the product. Naturally, our warranty does not cover labor to install or remove any products, shipping or freight charges, degradable materials components or abusive or negligent use.

Just call or email us with your issue & we will promptly try to resolve the issue. Call our Service Center at **(415) 754-3399** (9-4 PST) or email (sales@heezy.com) to receive prompt friendly service. If returning for full refund simply mail back your product with the original packaging to our address below within 90 Days. No need to call for returns, only if you need service. Thanks!

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